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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,428	10/16/2003	Hee Jeong Kim	2080-3-186	7974

35884 7590 08/08/2007  
LEE, HONG, DEGERMAN, KANG & SCHMADEKA  
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Suite 2300  
LOS ANGELES, CA 90017

EXAMINER
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NGUYEN, TAN QUANG

ART UNIT	PAPER NUMBER
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3661

MAIL DATE	DELIVERY MODE
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08/08/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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10/687428

EXAMINER
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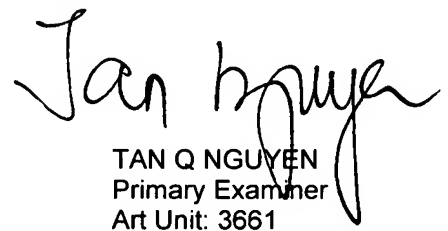
ART UNIT	PAPER
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Commissioner for Patents

  
TAN Q NGUYEN  
Primary Examiner  
Art Unit: 3661

## Office Action Summary

**Application No.**

10/687,428

**Applicant(s)**

KIM, HEE JEONG

**Examiner**

TAN Q. NGUYEN

**Art Unit**

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/21/2007</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAIL ACTION

### ***Notice to Applicant(s)***

1. This office action is in response to the Request for Continued Examination (RCE) filed on July 06, 2007. The previous not entered amendment filed on June 06, 2007 has now entered. Claims 1-21 are still pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al. (5,687,083) in view of Namba et al. (5,739,772).

4. As per claim 10, Kishi et al. disclose the invention as claimed which includes means for checking an intersection network to create a predetermined intersection based on a vehicle position information, wherein the predetermined intersection includes an approaching road 100 and a plurality of departing roads 102 (see figures 1, 3, and column 4, lines 50-54), means for creating a turn guide arrow to be displayed on the intersection, and means for simultaneously displaying the intersection and the turn guide arrow created thereon (see figure 3 and the related text). In the figure 3 of the

Kishi et al. reference, the approaching road direction is placed in the north, i.e. the relative angle between the approaching road direction and the north direction is zero, for easy to follow. However, in the situation of displaying the real direction in related to the north direction, as shown in figure 2 of the Kishi et al., such display of the intersection in which the approaching road having a relative angle with the north can be displayed in order to the user to visualize the real approaching road with the north direction up as shown in figure 2. The angle is between the approaching road and one of the plurality of departing roads can be obviously calculated as shown in at least figures 3 and 5. As shown in figure 5, the approaching road is Rs and the plurality departing roads are R1, R2, and R3 and their angles. In order to display the guide arrow from Rs to R1 (see figures 3 and 5), it is too obvious that such angle can be calculated based on the information in figure 5.

5. Kishi et al. do not explicitly disclose the shape of the turn guide arrow corresponds to an angle between the approach road and one of the plurality of departing road. However, such limitation is old and well known at the invention was made and shown in at least figure 14 of the Namba et al. reference. From figure 14 of the Namba et al., the approaching road is the white/highlight road with letter A, the departing road is the white/highlight road with the arrow showing the direction. It would have been obvious to an ordinary skill in the art to incorporate the teaching of the Namba et al. into the system of Kishi et al. in order to provide a better view of the intersection guidance for the user with an arrow guide corresponds to the intersection.

6. As per claim 11, Kishi et al. also disclose that the system includes means for calculating the angles of the approaching road and the other departing roads (using the predetermined set direction as the approaching road), and means for vertically placing

the approaching road and the other departing roads on the display (see at least figures 3 and 5).

7. As per claims 14-17, the limitations are inherently disclosed in the Kishi et al. reference in at least figures 1, 3, 9, 12(a) to 12(e).

8. Claims 1-4 and 6-9 are method claims corresponding to apparatus claims 10-17. Therefore, claims 1-4 and 6-9 are rejected for the same rationales set forth for claims 10-17.

9. As per claim 18, the limitations of this claim have been noted in the rejections above. They are therefore considered rejected as set forth above.

10. With respect to claim 21, the limitations of this claim have been noted in the rejections above. Kishi et al. do disclose the calculating a rotation angle by using the approaching angle between the a selected departing road when a vehicle is guided (see at least figures 3, 5-9, 12a-e and the related text). Kishi et al. do not explicitly disclose the display of a basic arrow which includes a lower body, an upper body and a head. However, such limitations are taught in at least figure 14 of the Namba et al. Thus, it would have been obvious to an ordinary skill in the art at the time the invention was made to combine the teaching of Namba et al. and Kishi et al. in order to not only provide the voice guidance for the driver but also providing a clear display including a basis arrow for the driver when approaching to an intersection.

11. Claims 5, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi et al. and Namba et al. as applied to the claims above, and further in view of Hulverscheidt et al. (6,762,696) and the related art in figure 1C of the present application.

12. With respect to claim 5, 9 and 20, Kishi et al. and Namba et al. disclosed the claimed invention as discussed above except for the turn guide arrow is arranged with a lower arrow, a center circle, an upper body and a head, and the width is adjustable with color changing. However, Hulverscheidt et al. suggest a routing display for navigation system in which a turn guide arrow is displayed which has a lower body, a circle, an upper part and a head as shown in at least figures 3a-3c. Hulverscheidt et al. further suggest that the width of the arrow turn is adjustable with color change (see at least figures 3a-3c and the related text, and claim 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such teaching of Hulverscheidt et al. into the combined system of Kishi et al. and Namba et al. in order to provide the system with the enhanced capability of improving the visual impression display for the user about the approaching intersection with more detail. It is noted that the Kishi et al. and Hulverscheidt et al. do not disclose the width of the center circle is identical to a width of the upper body and the lower body. However, such feature is obvious together with the figure 14 of Namba et al. and at least figure 1C of the present application to provide a finer arrow for the user.

### ***Remarks***

13. All claims are rejected.

14. Applicant's arguments filed on June 07, 2007 have been fully considered but they are not deemed to be persuasive.

15. In the amendment, applicants essentially argue that the references used fail to disclose the shape of the turn guide arrow corresponding to a specific calculated angle between the approach road and one of the plurality of departing roads. Such limitation

just added to the claimed invention. The new ground of rejection has been set forth as above.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Q. Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

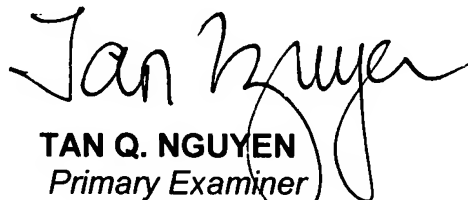
Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to the Official Fax Center: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/tqn  
August 3, 2007

  
**TAN Q. NGUYEN**  
Primary Examiner  
Art Unit 3661